# A STUDY OF INCOME ADMINISTRATION PRACTICES OF AMERICAN MANUFACTURING CORPORATIONS, 1932-1948

BY

CHARLES EDWARD MARBERRY

A.B., University of Illinois, 1948
M.A., Stanford University, 1950

## AN ABSTRACT OF A THESIS

SUBMITTED IN PARTIAL FULFILLMENT OF THE REQUIREMENTS
FOR THE DEGREE OF DOCTOR OF PHILOSOPHY IN ECONOMICS
IN THE GRADUATE COLLEGE OF THE
UNIVERSITY OF ILLINOIS, 1952

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# A STUDY OF INCOME ADMINISTRATION PRACTICES OF AMERICAN MANUFACTURING CORPORATIONS, 1932-1948

The purpose of this thesis is to examine the income administration practices of American manufacturing corporations to determine whether income is or is not administered in the stockholders' interest.[1] In the modern business corporation, a large degree of separation between control (management) and ownership (stockholders) has taken place. The stockholders are interested in receiving a "satisfactory" return on their investment in a corporation, but the declaration of dividends is a function of the directors (control) of the corporation. Therefore, the study deals with one of the important responsibilities of corporate managements in their relations with the owners (stockholders) of corporations. In studying the decision to distribute or to retain income, the thesis is concerned with one aspect of the entrepreneurial function in corporate enterprise.

The thesis has accepted two criteria as representing the stockholders' interest: (1) maximum return on investment, consistent with risk-bearing and the other functions of income, and (2) market liquidity of owners' principal, which means that a particular stockholder's investment can be liquidated in the market at any time with a minimum loss of principal.

In examining the income administration practices of American manufacturing corporations for the period 1932 through 1948, the thesis has employed the data compiled by the Treasury Department in the *Statistics of Income*. There are a number of limitations on the use of these data — one major disadvantage of the data is that studies of frequency distribution cannot be made, and an arithmetic average must

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1. The thesis is not concerned with profit (income) making. Also, a going concern point of view is adopted, and implicit in this point of view is the assumption that the stockholders furnish the risk-bearing capital of the corporation.

therefore be taken as representing the corporations within a category. In many respects, however, they are the best data available. Although the data are taken from the unaudited reports, the method of income determination is relatively standardized according to the tax law. Also, if income administration practices are studied by the use of a sample, the sample as determined by available data will largely be restricted to relatively well-known corporations with more than one million dollars in total assets.

In administering corporate income, management uses income to perform certain functions. The functions of income in corporate enterprise may be divided into four categories:

(1) The function of providing in whole or in part for high-cost replacement of both inventory and fixed assets;

(2) The function of meeting operational risks and reducing financial risks;

(3) The function of providing for dividend regularization;

(4) The function of corporate expansion through the retention of income.

(1) Under a given technique of production and output of goods, the inventories of a business represent a "base stock" of capital necessary to the continued profitable operation of a business. When the price of the inventory rises or falls, the value of this "base stock" of inventory capital will also rise or fall; but the increase in value does not represent a realized, money profit. In similar manner, if revenue covers all charges, the allocation over their useful life of the original cost of fixed assets against revenue may provide funds that are equal to, greater than, or less than replacement cost, depending upon changes in the level of prices of fixed assets between the date of acquisition and the date of replacement of the assets. Therefore, under the going-concern assumption, a business which wants to maintain its productive capacity (disregarding increased capacity from technological change) without additional outside financing must make provision out of income for

both high-cost replacement of inventory and high-cost replacement of fixed assets when the price level is rising.

(2) Business enterprise, including corporate enterprise, is constantly creating new conditions and adapting itself to changing conditions. Corporate enterprise operates in a changing environment, and it is impossible for the corporate managements to know the future with certainty. Therefore, corporations, if they are to avoid failure, must develop methods of dealing with the risks arising from uncertainties of operations. One important method of dealing with operational risks is the segregation of reserves of assets which have often been acquired from earnings retained in the business.

Also, financial risk — that is, the risk arising from charges on and maturities of corporate debt — is an important consideration in the administration of corporate income. Some corporations, especially those without easy and favorable access to outside equity capital, frequently retain income: (a) to provide the cash for reducing debt and thereby decrease financial risk, (b) to increase the amount of equity capital which in turn permits the acquisition of more debt capital with the financial risk remaining the same, or (c) to both expand in size and reduce financial risk through the growth of equity in relation to debt.

(3) Many manufacturing corporations have relatively unstable earnings. Therefore, in so far as these corporations attempt to maintain dividend stability and regularity, they must make provision out of high-level incomes to pay dividends when net incomes decline and possibly become deficits.

Stockholders' dividend interests are assumed to be best served by a distribution of maximum dividends consistent with the functions of income. However, the pattern of distribution may be irregular or may be regular and relatively stable in terms of dollars. If the stockholders' consumption habits are relatively constant in terms of real consumption, then their dividend interests are best served by increasing dollar dividends with increasing net income, since, at least in the period

covered in this study, net incomes have generally increased as the price level has increased.

Also, regular and relatively stable dividends meet the stockholders' desire for market liquidity of principal, since the shares of companies distributing this type of dividend are not subject to as wide variations in price as the shares of companies which do not regularize dividends; therefore, the stockholder who wants the return of his principal is less likely to suffer an extreme loss in periods of business pessimism. Furthermore, corporations paying regular and relatively stable dividends have favorable access to outside capital.

(4) Corporations frequently find it desirable to finance part of their growth out of retained earnings. This is especially true when the management determines that equity financing is desirable but equity funds are not available at attractive prices — and prices may be unfavorable either because the stock price is depressed or because the stock is expensive to sell. However, in investing retained earnings in the business, management should endeavor not to carry the investment beyond the point where the yield on the marginal unit of capital is at least equal to the return on comparable alternative investment opportunities — that is, if management is attempting to maximize the income of the owners (stockholders).

In retaining income for the purpose of investment in the business, the management of a corporation is not subjecting its decisions to the "test of the capital market"; however, there is no reason for assuming that this "test" is a logical one, since the logic of capital investment is the return on the marginal unit of capital in relation to the cost of that unit of capital, whereas the logic of stock-pricing is the average return per share on the total outstanding capital stock.

This thesis has examined each of these four functions of income in corporate enterprise in relation to corporate size and in relation to considerations other than size for the period 1932 through 1948. In regard to corporate size, it was concluded that small corporations would have reason to retain

relatively more income than would large corporations, and the evidence examined supports this conclusion. Furthermore, in regard to considerations other than size, the general pattern of income administration practice was found to be consistent with the influence of these considerations on the functions of income.

For the entire period covered in the study (1932-1948), it was found that American manufacturing corporations in the aggregate had distributed as dividends 61.9 percent of their reported net incomes. However, if the net income data are adjusted to eliminate inventory gains and losses and to allow for the difference between depreciation charges based on original cost and such charges based on replacement costs, then approximately 83.2 percent of net income has been distributed as dividends.

Among different size categories of manufacturing corporations, it was found that a larger percentage of net income was distributed as dividends by large corporations than by small corporations. However, in each of the size classes of corporations with more than $250,000 in total assets, the average corporation tended to increase dividends as net income increased.[2] The average corporation in the size group of the largest corporations — those with more than $50,000,000 in total assets — tended to maintain a greater degree of dividend regularity than corporations of smaller size, and large corporations tended to distribute a larger proportion of dollar increases in reported net income than small corporations.

In many cases, there are no important conflicts between the interests of the stockholders and the interests of management. However, there are three areas in which the interests of management may conflict with the interests of the stockholders. (1) Management may retain income and keep it in the form of idle surplus funds rather than pay it out in dividends because of an "excessive" pessimism about the

2. Corporations with less than $250,000 in total assets have been excluded from most of the analysis of the effects of corporate size; however all American manufacturing corporations have been included in the analysis of aggregate data.

company's future; this type of income retention is to insure the continuity of the business and, thereby, executive salaries. (2) On the other hand, some managements may retain income and invest it in the business because of the desire to control a large enterprise, and this type of expansion may be carried to the point where return on the marginal unit of capital is zero. Cases of this latter type would be most likely to arise where management's salaries are based on the amount of profits. (3) Another abuse of the stockholders' interests may occur where management continues a relatively unsuccessful business by the plowing back of meager earnings, although the stockholders might be better off if the business were dissolved.

In regard to the first type of abuse — (1) excessive retention with the funds obtained remaining idle — there are considerations which may serve as deterrents to this practice. This type of activity may lead to a stockholders' revolt against management, or, on the other hand, this type of income administration practice might depress the price of a company's stock until it would be attractive to some outside group to acquire control in the market. In regard to the other two abuses — (2) excessive retention with the funds obtained being used for unprofitable expansion and (3) unwillingness to dissolve — the problems are not exclusively considerations of income administration. Excessive and unprofitable expansion can also be financed in the market, and the question of dissolution or reorganization involves many considerations in addition to income administration.

The thesis concludes that the "reasonableness" of corporate income administration practices in the period 1932 through 1948 cannot be clearly established by an examination of the quantitative data — that is, the amount of net income retained in the businesses is neither clearly "excessive" nor clearly "reasonable." However, the general pattern of income administration, according to size and according to other financial functions, appears reasonable and in the stockholders' interest.

## VITA

Charles Edward Marberry was born September 2, 1922, in Carbondale, Illinois. After graduating from Carbondale High School, he attended Southern Illinois University for one term. He enlisted in the Army Air Force in 1941.

Upon discharge in 1945, he entered the University of Illinois and received the Bachelor of Arts degree from that institution in 1948. He began his graduate study at Stanford University in the fall of 1948 and received the Master of Arts degree from Stanford in 1950. Returning to the University of Illinois in 1949, he entered the Graduate College. From September, 1949 to August, 1951, he held a half-time assistantship in economics, and, during the academic year 1951-1952, he held a University Fellowship.